

Date: Friday, 20/02/2009 9:17:28 AM
 User: Jean-Luc Menard

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SADDLE FITTING, AFT (OUTBOARD/INBOARD)
 Job Number : 45923
 Estimate Number : 10533
 P.O. Number :
 This Issue : 20/02/2009 S.O. No. :
 Prsht Rev. : NC Part Number : D2573
 First Issue : 11 Type : MACHINED PARTS Drawing Number : D2573 REV E
 Previous Run : 44206 Project Number : N/A
 Written By : SP 09.02.20 Drawing Revision : E
 Checked & Approved By : Material :
 Comment : Est: 1 As Per RevE 06-01-27 JLM Due Date : 27/02/2009 Qty: 20 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D6101007 Saddle Billet



Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)

7075-T7351 8.25X7.75X2.5

Make from D6101-007 billet for D2573

Ensure that grain is along 7.75" length

Batch No: B42991

(10)

2.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

Program Batch No. 345923 Double check by: HA

(10)

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine Step No 2 per

Folio FA051 and inspect per attached Dimension Sheets

3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets

4-Deburr and remove all machining marks

5-Tumble to remove sharp edges.

3.0 MILLING CONV. CONVENTIONAL MILLING MACHINE



Comment: CONVENTIONAL MILLING MACHINE

Machine keyway as per dwg D2573 & D2574

(10)

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

(10)

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Part Number: D2573

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

J.F. 09/03/04

(10)

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

BR 09-03-4

(10)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME: 10:00am

OVEN TEMPERATURE: 370°F

FINISH TIME: 10:30am

W

09-03-05

(X 10)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

BR 09-02-5

(10)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 57 434

BR 09/3/04

(10)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

BR 09/03/06

(10)

Job Completion



mf 09-03-06

DART AEROSPACE LTD	Work Order: 45823
Description: Saddle, Aft Outboard	Part Number: D2573
Inspection Dwg: D2573 Rev. E	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443			.439	.439	.439		
B	1.745	1.755			1.750	1.750	1.750		
C	3.495	3.505			3.500	3.500	3.500		
D	1.745	1.755			1.750	1.750	1.750		
E	7.990	8.010			8.002	8.000	8.000		
F	0.490	0.510			.510	.507	.507		
G	0.257	0.262			.259	.259	.259		
H	0.375	0.380			.377	.377	.377		
I	0.490	0.510			.510	.507	.5		
J	1.174	1.184			1.179	1.179	1.179		
K	0.558	0.578			.578	.576	.570		
L	1.174	1.184			1.179	1.179	1.179		
M	1.365	1.375			1.370	1.370	1.370		
N	2.495	2.505			2.500	2.500	2.500		
O	4.119	4.129			4.124	4.124	4.124		
P	0.115	0.135			.130	.130	.130		
Q	0.115	0.135			.135	.135	.135		
R	0.240	0.260			.253	.253	.253		
S	0.115	0.135			.130	.130	.126		
T	0.178	0.198			.188	.188	.188		
U	3.210	3.250			3.230	3.230	3.230		
V	0.230	0.250			.247	.250	.243		
W	0.115	0.135			.132	.133	.128		
X	0.308	0.313			.310	.310	.310		
Y	0.760	0.765			.760	.760	.760		
Z	0.352	0.372			.372	.370	.370		
AA	0.470	0.530			.500	.500	.500		
AB	0.615	0.635			.630	.630	.630		
AC	0.053	0.073			.063	.063	.063		
AD	0.240	0.260			.250	.250	.250		
AE	1.500	1.520			1.508	1.506	1.512		
AF	0.115	0.135			.125	.125	.131		
AG	0.240	0.280			.260	.260	.260		
AH	0.240	0.260			.257	.257	.253		
AI	2.000	2.020			2.000	2.000	2.000		
AJ	0.023	0.043			.033	.033	.033		
Accept/Reject									

Measured by: <i>RF</i>
Date: 09/02/06

Audited by: J.F.
Date: 09/03/04

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

DART AEROSPACE LTD	Work Order:	45923
Description: Saddle, Aft Outboard	Part Number:	D2573
Inspection Dwg: D2573 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	5X	6X	7X	8X		
A	0.438	0.443		.440	.440	.440	.440		
B	1.745	1.755		1.748	1.748	1.747	1.748		
C	3.495	3.505		3.497	3.497	3.500	3.500		
D	1.745	1.755		1.748	1.748	1.748	1.748		
E	7.990	8.010		8.002	8.000	7.999	8.001		
F	0.490	0.510		.497	.495	.500	.506		
G	0.257	0.262		.259	.259	.259	.259		
H	0.375	0.380		.377	.377	.377	.377		
I	0.490	0.510		.502	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.570	.568	.571	.566		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.377	1.377	1.377	1.377		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		.131	.131	.131	.131		
Q	0.115	0.135		.130	.130	.130	.133		
R	0.240	0.260		.253	.253	.253	.253		
S	0.115	0.135		.128	.128	.124	.122		
T	0.178	0.198		.188	.188	.188	.188		
U	3.210	3.250		3.230	3.230	3.231	3.231		
V	0.230	0.250		.248	.248	.238	.230		
W	0.115	0.135		.125	.125	.124	.124		
X	0.308	0.313		.312	.312	.312	.312		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.370	.370	.372	.372		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.625	.625	.635	.624		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.250	.250	.250	.250		
AE	1.500	1.520		1.510	1.510	1.510	1.512		
AF	0.115	0.135		.135	.135	.120	.130		
AG	0.240	0.280		.260	.260	.260	.260		
AH	0.240	0.260		.250	.250	.248	.250		
AI	2.000	2.020		2.000	2.000	1.999	2.001		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by:	RF	MNF
Date:	07/02/27	07/02/28

Audited by:	J.F.
Date:	09/03/04

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
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DART AEROSPACE LTD	Work Order:	45923
Description: Saddle, Aft Outboard	Part Number:	D2573
Inspection Dwg: D2573 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	9 ¹⁰	10 ¹²	11 ¹³	12 ¹⁴		
A	0.438	0.443		.440		.440	.440		
B	1.745	1.755		1.748		1.748	1.748		
C	3.495	3.505		3.498		3.498	3.498		
D	1.745	1.755		1.748		1.748	1.745		
E	7.990	8.010		8.000		8.000	8.001		
F	0.490	0.510		.500		.496	.500		
G	0.257	0.262		.260		.260	.260		
H	0.375	0.380		.376		.375	.375		
I	0.490	0.510		.500		.497	.498		
J	1.174	1.184		1.178		1.179	1.179		
K	0.558	0.578		.567		.566	.566		
L	1.174	1.184		1.177		1.177	1.177		
M	1.365	1.375		1.369		1.370	1.370		
N	2.495	2.505		2.499		2.497	2.497		
O	4.119	4.129		4.122		4.121	4.122		
P	0.115	0.135		.130		.130	.128		
Q	0.115	0.135		.135		.135	.135		
R	0.240	0.260		.247		.246	.246		
S	0.115	0.135		.125		.125	.126		
T	0.178	0.198		.188		.188	.188		
U	3.210	3.250		3.230		3.228	3.23		
V	0.230	0.250		.230		.227	.229		
W	0.115	0.135		.125		.130	.125		
X	0.308	0.313		.312		.312	.312		
Y	0.760	0.765		.760		.760	.760		
Z	0.352	0.372		.372		.371	.372		
AA	0.470	0.530		.500		.500	.500		
AB	0.615	0.635		.624		.625	.623		
AC	0.053	0.073		.063		.063	.063		
AD	0.240	0.260		.250		.250	.250		
AE	1.500	1.520		1.512		1.514	1.510		
AF	0.115	0.135		.130		.130	.128		
AG	0.240	0.280		.265		.270	.270		
AH	0.240	0.260		.243		.244	.245		
AI	2.000	2.020		2.002		2.000	2.003		
AJ	0.023	0.043		.033		.033	.033		
Accept/Reject									

Measured by: <i>mmf</i>
Date: <i>09/03/01</i>

Audited by: <i>J.F.</i>
Date: <i>09/03/04</i>

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

RELEASED

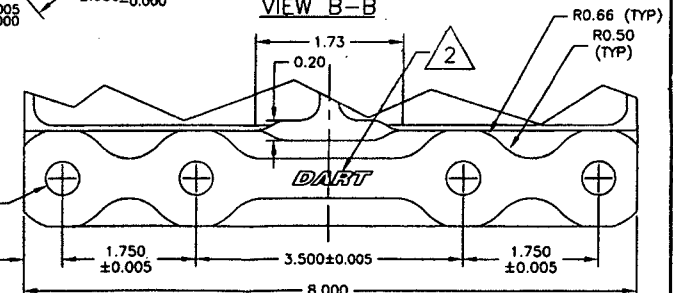
05.12.06 #

NOTES

MATERIAL: 7075-T7351 (Q0-A-250/12)
(REF DART SPEC. D6102-001)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER
DART QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 1 ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010
- 2 ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125
- 3 CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)
- 4 CHAMFER 0.063" x 45° ALL AROUND
- 5 CHAMFER 0.033" x 45° (SEE DETAIL C) E

VIEW B-B

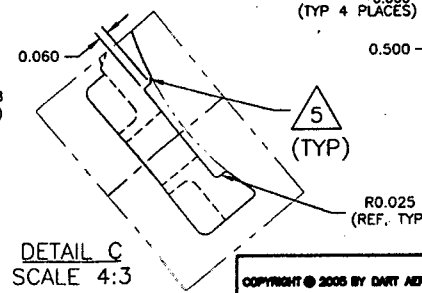


E	05.07.13	ADD CHAMFER ON RIDGE NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE

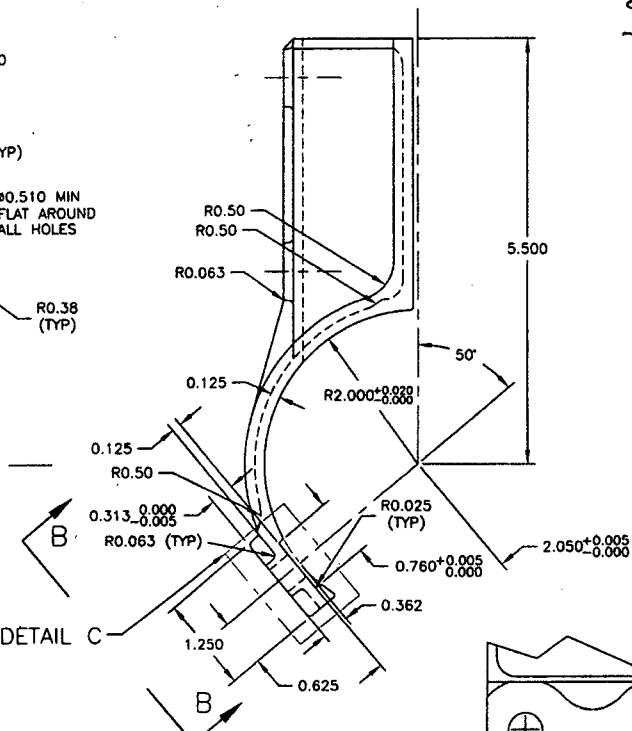
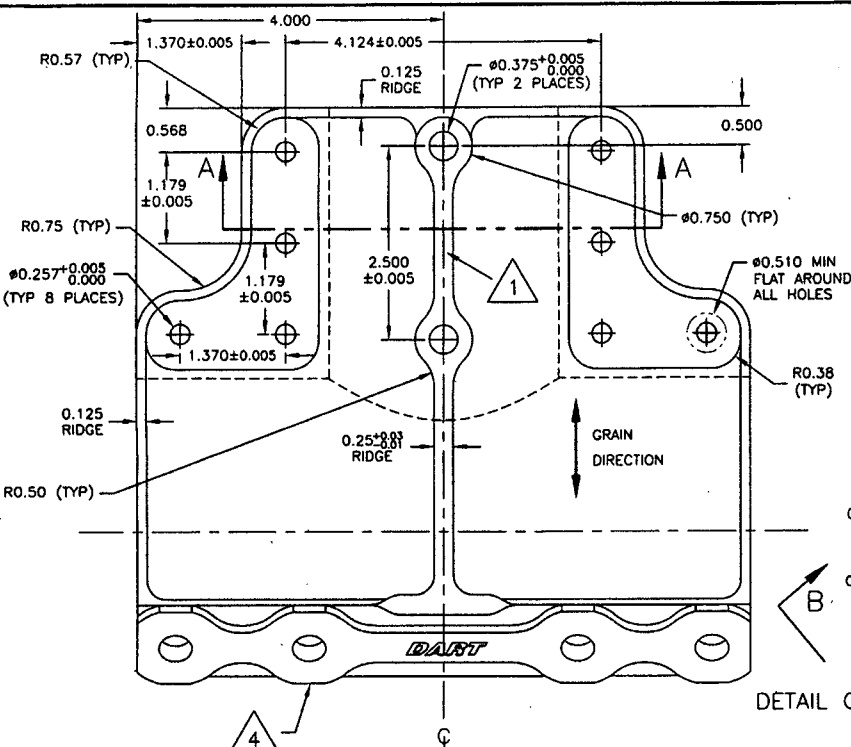
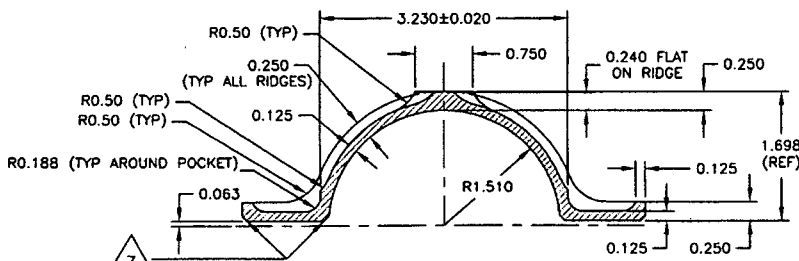
DESIGN	DS	DRAWN BY	PH	DART	DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO.	D2573
DATE	05.07.13	TITLE	OUTER AFT SADDLE		
		SCALE	2:3		

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DART AEROSPACE LTD.

DETAIL C
SCALE 4:3



SECTION A-A



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.02.27	2	Wall thickness 0.090 SADDLE-TO-SKIDTUBE WALL. PART WAS TILTED IN JIG	CP 09.02.27 PC QSI 042	SCRAP / DESTROY NO REPLACE Batch # 42991	SP 09/02/27		CP 09.02.27 PC QSI 042	
09/03/01	0.2	R.C operator error. Part is machine crooked because use tool and vibration made vise too loose. Vise not properly tighten R.C operator error	QSI 042	Ensure to verify set-up tightness prior to machining: go bottom. Scrap & destroy: No replace.	MMW 09/03/01	J.F 09/03/04	QSI 042	09/03/02

NOTE: Date & initial all entries